day, His Majesty had nothing at all to say and manifested a tendency, like an express parcel, to stay where he was put. Some of the women on a shopping tour during the afternoon came across him in the little shop of a Chinese trader on the pier, a horrible little hovel. This is the royal retiring-room during state visits to Jolo, and he was lying down in his shirt-sleeves refreshing himself with a whiff of opium. His home is twelve miles from the town, in the mountains. Here he lives in native fashion and abandons the crease in his trousers and also the trousers.

At the ball given that evening, however, he burst forth in unexpected splendor. He wore a vermilion frock-coat, reaching to his knees, with immense gold epaulets and arabesques of wide gold braid wherever a line of it could be run. His trousers were snow-white with a stripe of gold braid an inch and a half wide. This impressive creation had been made in Paris especially for this occasion. The Secretary stuck to his green and gold spangles, and the interpreter was, theoretically, in evening dress; so the charming sartorial variety of the party was still preserved. The ball-room was the second floor of the Army and Navy Club, a comfortable and fairly spacious wooden building stretching out over the water. It was tastefully decorated and the moon and sea outside, visible from the balcony and through the open window, made a pretty contrast. It was at this ball that an incident occurred which has been so widely misreported in various newspapers that the actual facts ought to be told.

A personage of great interest to all the Moros, and indeed to the foreign multitudes throughout the whole tour, was Miss Roosevelt. The interest in her, and the eyes directed at her, undoubtedly exceeded the attention paid to Secretary Taft. Two newspaper correspondents from Manila, at this ball, thought it a clever feat of journalistic enterprise to induce the Sultan to offer his hand and throne to the daughter of the President, and made the proposition to him. They were met with a quiet and contemptuous refusal; but none the less they spread the story in their newspapers that such a proposal had been made, and thus it got abroad. It never had any foundation of any kind; but what actually did occur was rather interesting in its way.

When Secretary Taft and his party arrived at the ball the Sultan and his staff, about a dozen in all, were grouped on one side of the hall. Intimation was shortly given that he desired to pay a compliment of some kind to Miss Roosevelt. The Sultan took the center of the floor, followed by the interpreter and a native bearing a handsome saddle in red leather. The Sulu Moros are famous workers in leather, and this saddle with its trappings was elaborately ornamented and the finest of its kind. Miss Roosevelt went forward and was greeted by His Majesty with an elaborate bow. The interpreter then said: "The Sultan has the honor to present you with this saddle, and the Sultan and

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BLUE ROSES AND GREEN PINKS

Dye-Pots and Flower-Pots

By ROBERT MEADE VAUGHAN

THE long-sought blue rose, pursuit of which had been well-nigh abandoned as hopeless, is at last an accomplished fact. Uncle Sam has produced the flower, and specimens of it will soon be placed on exhibition in the Government greenhouses in Washington.

The marvel has been evolved by the employment of an ingenious artifice, certain elements being contributed to the soil which supply the requisite pigment. Up to the present time the work has been carried on with great secrecy by experts of the Plant Bureau, but before long a special bulletin on the subject will be issued, telling people just how they may grow blue roses in their own yards or window-boxes.

Like most things in this world, it is simple when you know how. All you have to do is to sprinkle the soil about your rose-plant with water into which a small quantity of an inexpensive chemical powder has been put. You drop a portion of the contents of a little paper packet into the watering-pot, use the latter in the customary manner, and the wished-for result is soon accomplished.

The experiments made by the experts were at the start of a purely chemical nature. They took roses of different colors, a few at a time, and squeezed the juice out of them, thereupon subjecting the liquid to analysis. In this way they ascertained that the coloring matter present was composed of two distinct substances, one red and the other blue. The latter substance, to which the name "flower blue" has been given, was found to be mixed with the red pigment in varying proportions, the compound being held in solution by the plants. By treating the liquid with chemicals its color could be altered at will. For example, potash turned it green, alum changed it to lilac, and muriatic acid gave it a reddish hue. But when the juice of perfectly white roses, which was entirely colorless, was taken, the problem became extremely simple, the liquid readily adopting any tint desired.

This last point, indeed, might be taken as a matter of course; but it was necessary, in order to solve the problem satisfactorily, to ascertain definitely the make-up of the coloring material present in different varieties of roses. The chemistry of the blossoms, so to speak, being once understood, it was possible to proceed scientifically and to apply the knowledge thus gained to the production by artificial means of roses possessing tints unknown to nature.

The next step taken was to place cut roses of different colors in water containing small quantities of suitable chemicals and to observe the effects produced. It was found that as a result the flowers subjected to this sort of treatment gradually altered their hues, assuming tints corresponding to those obtained in the experiments made with the juice in the laboratory. Muriatic acid turned them red, potash changed them to green, and alum gave them a lilac color. Pink became copper-red under the influence of muriatic acid.

By using only white flowers, however, with definite amounts of the appropriate chemicals, results absolutely definite could be secured. It was decided, therefore, that if roses of new colors were to be grown successfully in soil, only colorless varieties must be planted. This idea was finally adopted, and the same chemicals being utilized, by dissolving them in water and applying them about the roots, the plants were made to bear tinted blossoms. When, by the employment of a particular solution which as yet is a secret, the first blue rose was persuaded to unfold its delicate petals, the problem was seen to have been solved.

Not only blue roses, however, but green roses—by the use of a potash solution—have been obtained, and both have been privately exhibited to a gathering of sympathetic scientists in Washington. It was explained by the experts that similar results could be secured with other kinds of flowers. For example, the every-day white hydrangea could be made to yield pink blossoms by watering the plant with a solution of copperas. In all cases it was found best to employ white flowers, because, having no color of their own, they would readily adopt any tint which might be communicated to them by the ingenious artifice described.

When publication is made in regard to this interesting investigation, with a full description of the methods adopted and the chemicals employed, anybody, by following the simple directions given in the bulletin, will be able to perform these marvels for himself. The home window-garden may be made to bloom with flowers of altogether unfamiliar appearance, and blossoms of bizarre aspect will adorn the neatly cultivated beds in the front or back yard. With the help of a few little bottles, each bearing an appropriate label even the tints of the cut flowers in vases on mantelpiece or center-table may be modified to suit the most exacting taste.

To meet the demand for green carnations on St. Patrick's Day, and pink chrysanthemums of odd and unnatural tints to harmonize with certain decorations for receptions and teas, the florist has employed a process that differs largely from the one just described. He is inclined to cast a mystery about the production of these curiosities; but the process is so simple and the materials used are so easily obtained that anyone may experiment with a certainty of success.

A solution is prepared by pouring boiling water over a small quantity of common dye, the proportions being a cup of water to the size of a pin-head of color. The mixture thus formed is well stirred to produce a thorough distribution of the dye. It is then allowed to cool, when the stems of the white flowers are placed in it, and the sap, running upward, carries the color through the veins to the petals. Only freshly cut flowers will drink up the fluid in this manner, since the sap does not flow after the flower has been cut for several hours. It is necessary also that the solution should be weak, as the color is not likely to be absorbed if too dense and not well distributed. When the flowers are not perfectly fresh and will not absorb the dye through the stems, they may be dipped in the solution, which is entirely satisfactory, though it does not give the evenness of color that may be obtained by the former means. In either case, permanent colors will be secured without detracting materially from the duration of the flowers.

It is not at all unlikely that florists may find this new and interesting discovery of the use of chemicals advantageous in a commercial way. They will be able to supply cut flowers of out-of-the-way tints on demand—such, for example, as pink or blue lilies-of-the-valley, or red tuberoses. All of these, in fact, have already been produced by the experts of the government Plant Bureau. Tuberoses in particular have been found amenable to treatment of the kind. Pure white to begin with, they have been made green, red, blue, yellow—in short, of every color in the rainbow. It is believed that they will be successfully grown in pots in all of these hues, though experiments in this line are as yet somewhat incomplete.

The long-wished-for black tulip, which Dame Nature has not hitherto been persuaded to produce, ought now to be within reach. Likewise the black rose, which, though surely it could not vie in beauty with colored roses, would be at least a great curiosity and might become fashionable for mourning wear. These and other ornaments which horticultural art has deemed unobtainable for the garden may yet become accomplished facts through the medium of chemistry.

From the explanation already given it will be understood that the substance which gives to most flowers their beautiful colors is a cell-sap—a solution of pigments, that is to say—contained in the petals and other parts of the blossoms. In the case of yellow flowers, however, such as crocuses and buttercups, the pigment is not thus held in solution, but is deposited in a granular form in the walls of the cells—an entirely different method of painting, so to speak, being adopted in their case by nature. It has not been found practicable to modify this pigment by the use of chemicals, and thus it is likely that we shall have to continue to be satisfied with buttercups and crocuses of the hue to which we have been accustomed.

AN IDEAL VALENTINE

By Jessamine Childe

Drawing by E. S. Bliss

Eyes of soft and dewy brown,
Sweetly, shyly looking down,
Cheeks that shame the Jacqueminot,
Lips that make a friend of foe,
Hair that's spun with threads of gold,
Shimmering ringlets you behold,
Grace that only fairies brought—
Ah! the charm of love is wrought.
Would that I could call her mine,
This ideal Valentine!